Status of the European (International) Care Labeling

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I was asked to tell a little bit about the status of European care labeling. The European GINETEX care labeling system has been accepted by a majority of the countries of the world as an international care labeling code. The care label itself was introduced in Europe about 1950. It originated in The Netherlands and then spread to France and the other European countries as a voluntary service to the consumers offered by the textile and apparel industry. It's not regulated by government. It's a voluntary service. To control the correct application, the care labeling code was protected by an international trademark. The ownership of this international trademark belongs GINETEX. GINETEX itself grants the ownership to the national bodies. The reason for this is to control its correct use. If you have no governmental regulation, then you have to have someone to control it. We thought it was best to have the industry and the consumer organizations do the controlling themselves. One big advantage is, if technology develops, it takes us just a few months to change our labeling system. We just need a meeting of the board to decide, we don't need any changes in governmental regulations or laws.

There were two discussion points for the basics of this care labeling system. One was optimum process, but when you discuss optimum care process, you need to discuss optimum to what. Optimum cleaning is always a problem for the lifetime of a textile, and sometimes this is a problem with environmental impact. GINETEX decided on a maximum process. Even with a maximum process, however, there are problems with material changes ranging from bleeding of color to irreversible damage to the textiles.

The next thing was it was produced by the textile chain. The textile and apparel manufacturer can and will, for cost reasons, only apply a very limited variety of care label combinations. The number of choices or symbols, therefore, has to be reduced to the lowest possible level. Each symbol has to be based on a testing procedure in order to verify the correctness of the choice. The reason we could have a small number of symbols was that we omitted all the general information. For instance, you can give general information, such as if you have a loose structure, then you have to dry flat. Or if you have a colored fabric, it's better to dry in the shade, or turn it inside out during washing. So all this information is just given as general information to the consumer and not given as a label, as the information is true for almost everything.

Slide 3 shows the resulting care labels. The first is the washing symbol, which is a little bit different from the washing symbol in the United States. It's only a washing symbol for home laundry. This is advice to the consumer, not including the industrial launderer. The industrial launderer can use it as additional advice according to his own knowledge and experience as a professional for how to treat fabrics. Two additional symbols were also used. One is the bar under it for a gentle cycle, and the broken bar for a very gentle cycle, which actually is only used for the wool wash cycle. Then a hand-wash symbol. We have included at the moment five temperatures. It is still being discussed whether two temperatures should be deleted from the process, as only the remaining temperatures cause irreversible damage.

The second symbol on Slide 3 is a chlorine bleach symbol, as oxygen bleach was a general technique in Europe. The ironing symbol has three different possibilities. The dry cleaning symbol is also a little bit different from the American type. We only have one restriction, which is symbolized by a bar under the symbol. Our experience shows us that a dry cleaner has only two processes, one for regular work and one

for sensitive work. Actual restrictions are then water, mechanical action, and/or temperature in drying.

Finally, we have the tumble drying symbol. We think natural drying methods are well known to the consumer, and you can give information in the general form, for instance, dry flat or dry in the shade.

To summarize, we have a system on a voluntary basis and we have a system that is registered as a trademark. Now let's turn to alternatives techniques. Available alternative techniques are hydrocarbon solvents, wet cleaning and perhaps liquid or supercritical CO_2. For hydrocarbon solvents we normally do not have a big problem, as the hydrocarbon already is labeled with F. The only difference is with modern, explosion-proof machines and modern solvents. There might be some problems with the drying temperature and the drying time, as drying temperature is a little bit higher, approximately 60°C compared to the labeling of the mild process which has 40°C. This will be discussed by GINETEX in the future.

Now let's turn to wet cleaning, which was the major part of this discussion. We had no care labels for the wet cleaning process. The wet cleaning process was introduced in 1991. Even before the official introduction of this process, the discussion about introducing the wet cleaning symbols started in GINETEX. It is important when introducing a new care symbol that we have an internationally accepted care technique. That was not realized when the discussion started. When wet cleaning started in 1991, it was not internationally accepted. The second point is that we should have an internationally accepted test method. And the third point is the integration into the registered trademark. That is only true for GINETEX countries, but it raises some difficulties that we will discuss later on.

Three proposals for labeling of wet cleaning within the limitations of the trademark were discussed. One proposal is for the alternative use of dry and wet clean symbols, two symbols, allowing both possibilities. The second proposal was the application of a modified washtub as a symbol for wet clean. A problem with this is the consumers' trial-and-error practice which will lead to home laundry and perhaps to liability risks. And of course you can understand that the dry cleaning industry doesn't want this possibility, as it would promote home laundry. If professional cleaning is done according to the state-of-the-art, it is always more environmentally friendly than the home laundering process. So even from an environmental standpoint, labeling should not be going in this direction. This is especially true for the American type of washing machines which use quite more water and energy for washing than the European type of machines. The third proposal was for information in addition to the registered trademark, either by words (but you have a language barrier in Europe), an additional symbol outside the care label, a combination of symbols and language, or a new extra symbolization.

These were the three possibilities discussed, and the decision was rather simple. The decision was to include it into the normal dry cleaning labeling. The reason for this was that the consumer should get the right information that he should bring this kind of article to the professional dry cleaner. If you create an extra symbol, you need extra information which would confuse the consumer. It has to go to the same shop but the cleaning method is identified by an additional symbol.

The wet clean classification would have three symbols. A normal W is used for washable articles, washable textiles or apparel, that, for performance reasons, should be professionally wet cleaned. This was what Kaspar Hasenclever mentioned, to invite the consumer to bring more articles to be professional wet cleaned. The second symbol is for gentle process. This was mentioned for "do not wash" articles according to the International Organization for Standards (ISO) 6330 test. The third one was a very gentle process for articles that also could not be washed according to ISO 6330, but have a higher sensitivity towards mechanical action as defined by the standards. Examples for the one bar process given here are normal wool articles. Examples for the very gentle process are angora, silks, and similar very sensitive articles.

We have one problem within our GINETEX system. This was very elegantly solved. Given that there are only two possibilities of registered symbol combination—they allow only one symbol for each treatment—what do you do when you have dry cleanable and wet cleanable articles? The decision made here was rather simple. As I already told you, the W was introduced to label wet cleaning. If an article can be either dry cleaned or wet cleaned, then the dry clean symbol has a priority. The reason for this is 95 or 90 percent of all dry cleaners still have perchloroethylene cleaning, and they should have the priority information. The W is put in a circle under the dry cleaning symbol outside the combination. If an article is not dry cleanable, then the W can be put in the normal combination.

We already discussed the test methods. As I said, if there are no accepted test methods, then there is no label. We need the accepted test methods, reasonable evidence for the correctness of the label chosen, and why an article is sensitive towards wet cleaning. Wet cleaning is the interaction of washing in detergents. These can already be tested by conventional methods, ISO 105 or ISO 6330. But there are a lot of articles that are sensitive because of the interaction of water, detergent, and mechanical action. The testing, therefore, has

been done under wet clean conditions. A novel testing procedure has been developed. Round robin tests are carried out. The momentary situation is that the test procedure or the demand for this test procedure has been brought in by the British Standard Organization to send to the European Standard Organization (CEN), which finances research programs. They proposed a new work item on wet cleaning testing in April 1996. At the wfk a group has been developing a testing procedure for over a year. This proposal was accepted by the German Standard Organization and sent to CEN. CEN transferred this proposal to the ISO T3-38-SC2. We hope the proposal will be discussed by the professional cleaning group during the next meeting to be accepted as a new work item for ISO.

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STATUS OF THE EUROPEAN (International) CARE LABELING

Apparel Care and The Environment
Alternative Technologies and Labeling
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History of the Symposium/Ginetex Care Labeling System

- Care Labeling was Introduced around 1950 as a Voluntary Service to the Consumers by the Textile and Apparel Industry
- To Control the Correct Application it was Protected by an International Trademark Registration in Geneva

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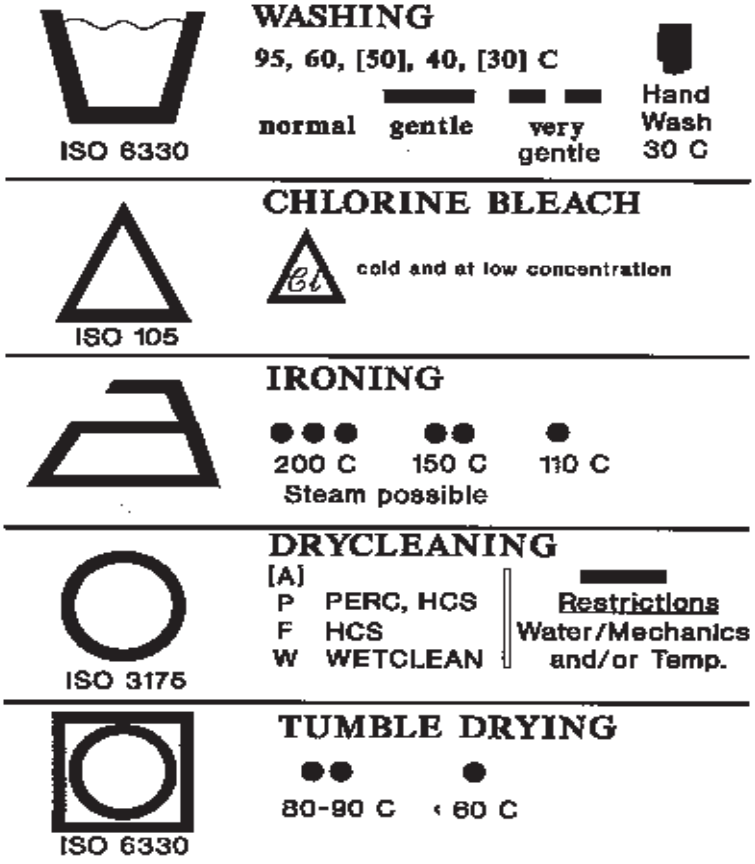

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Care Labeling and the Textile Chain

- The Textile and Apparel Manufacturer Can and Will for cost reasons only apply a very limited variety of care label combinations
- The number of choices [SYMBOLS] therefore has to be reduced to the lowest possible level
- Each symbol has to be based on a testing procedure in order to verify the correctness of the choice

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Basics for Care-Labeling

- OPTIMUM Process

  Environment
  Convenience for the Consumer
  Cleanliness
  Lifetime of Textiles

- MAXIMUM Process

  Material Changes ➡ all
  ➡ irreversible damage

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Basics of ISO/GINETEX Care-Labeling

The Care-Treatment of

- Maximum Severity

a Textile/Garment Can Withstand without

- Irreversible Damage

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"Available" Alternatives in "Dry"cleaning

- Hydrocarbon Solvents (HCS)
- WETCLEAN

[- Liquid/Supercritical Carbon Dioxide]

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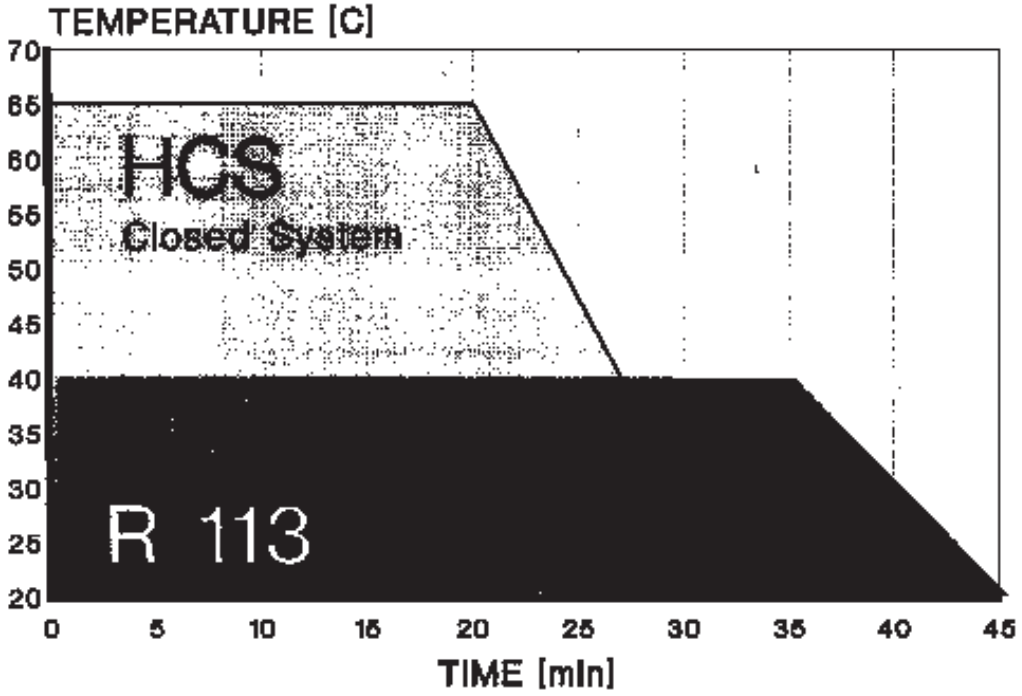
Time/Temperature-Diagram of F-Processes Applying R113 and HCS



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BASICS
for the Introduction of a
Care Symbol

☑ Internationally accepted technique

☑ Internationally accepted test method

☑ Integration into the Registered Trademark (GINETEX countries)

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Proposals for a Labeling of WETCLEAN within the Limitations of the Trademark

1. Alternative Use of Dry- or Wetclean Symbol
   What is with Wet- and Drycleanable Goods
2. Application of a Modified Wash Tub Symbol for Wetclean
   Consumers' Trial-&-Error Practice will lead to Home Laundering; Liability Risks
3. Information Additional to the Registered Trademark
   - By Wordings (Language Problem)
   - Additional Symbol Outside Care Label Combination
   - Extra Symbolisation (Extra Trademark)

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wfk Decisions of Ginetex Conseil (3/1996) with Regard to Wetcleaning Symbolisation

1. The circle with a W shall be introduced to label WETCLEAN with three severity levels
2. If an article can either be drycleaned or wetcleaned then the dryclean symbol has the priority in the registered combination. The W then shall be put in a circle under the drycleaning symbol outside the combination
3. If an article is not drycleanable, then the W may be used in the circle within the registered combination

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wfk Classification of Textiles and Apparel into the 3 Levels of Severity of Symbols

1. normal (W)
   Washable textiles and apparel which for performance reasons preferably should be professionally wetcleaned (size, complicated structures, finish)
2. gentle (W)
   "DO-NOT-WASH"-articles according to ISO 6330 because of sensitivity towards mechanical action as defined by the standard (normal woolens)
3. very gentle (W)
   "DO-NOT-WASH"-articles according to ISO 6330 because of high sensitivity towards mechanical action as defined by the standard (angora, silks)

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Another BASIC CONDITION

NO ACCEPTED TEST METHOD

=

NO LABEL

Reasonable Evidence for the Correctness of the Label Chosen

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WETCLEAN PROCEDURES

	Procedure	normal	gentle	very gentle
WASH	Wash Temperature [C]	40 - 95	30	20 - 30
	Load Factor [kg/L]	1:25	1:25	1:40
	Liquor Ratio [L/kg]	5	5	5
	Wash Time [min]	15	10	10
	Mechanical Action	normal	gentle	very gentle
	Rinses (No./Temp.)	2/cold	1/cold**	1/cold**
DRY	Inlet-Temperature*[C]	80	60	60
	Endpoint Moisture [%]	< 8	12-15	
	Drying Time [min]			2

* preheating to 60/40 C
** adding 2,5 g/L detergent

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Maximum Shrinkage Requirements for the different sensitivity levels

Process	Relative shrinkage [%]
normal	no requirements
gentle	60
very gentle	20

The shrinkage of the A1 test monitors should not exceed the above relative values compared to the A7 wool wash program of ISO 6330.
The test procedure is described in IEC 456.
The figures are still in discussion

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- **Calibration Process**
  Calibration of the IWS A1 test monitor according to IEC 456 in the reference washing machine according to ISO 6330

- **Normalisation Process**
  Validisation of the gentle and very gentle process (washing and tumble drying) using the calibrated monitors

- **Wetcleaning Procedure (TEST)**
  includes washing and pre-drying or drying according to the definitions of the test procedure for the care label and the finishing process as appropriate for the specimen tested

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Status of the Situation for a Testing Procedure Concerning Wetcleanability of Textiles

- Positive Vote by CEN on a BSI Paper Proposing a NWIP on Wetclean Testing Procedure [4/96]
- German Proposal for a Testing Procedure for Wetclenable Articles Sent to CEN [5/96]
  prepared by an International Working Group
- Transfer of the German Proposal to ISO TC38 SC2 as a Consequence of the Vienna Agreement [5/96]

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TRADEMARK PROBLEMS in Care Labeling

1. Care labels can only be used with the permission of GINETEX
2. GINETEX will only allow the use of the registered trademarks
3. There are only two registered symbol combinations. They allow only <u>one</u> symbol for each treatment.

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wfk Permitted Symbol Combinations

1. 

neither dry- nor wetcleaning

2. 

only wetcleaning/no drycleaning

3. 

only drycleaning/no wetcleaning

4. 

dry- and wetcleaning

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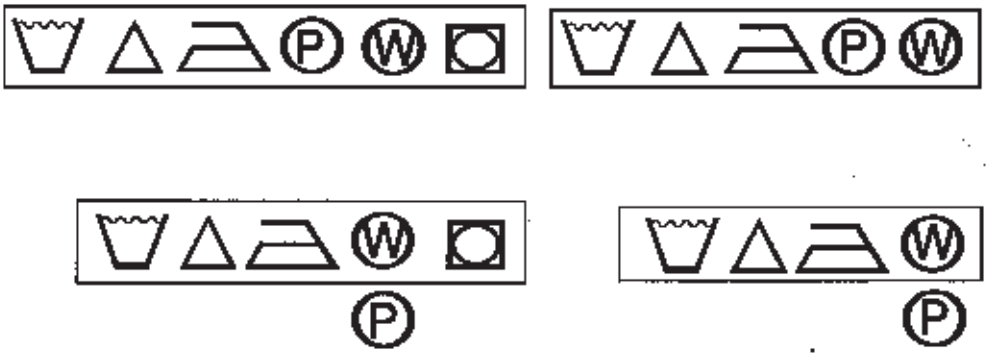
wfk Not Permitted Symbol Combinations

dry- and wetcleaning



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RESEARCH in the WETCLEAN Field

- **Pre-Research Work:**

  Defect Analysis and Fault Localisation after Wetclean

  WETCLEAN Technical Plant in Dresden/ wfk and Institute for Textile and Apparel Technology of the Technical University Dresden

1. **Production Requirements for Wetcleanable Apparel / Part I: Career Apparel**

   Institute for Textile and Apparel Technology /Technical University Dresden Approved

2. **Improvement of Cleaning Performance by Process Optimization**

   wfk and Partners (CRAFT, Phase 1) filed

3. **Optimization of Finishing Technology after Wetcleaning**

   Institute for Textile and Apparel Technology Dresden / wfk filed

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wfk "Dry"cleaning Symbols and the Technical Description of Processes

	PERC		HCS		WETCLEAN		
	Ⓟ	Ⓟ	Ⓕ	Ⓕ	Ⓦ	Ⓦ	Ⓦ
Washing							
temp./ C	33	33	33	33	30-90	30	20
time/min	20	10	20	10	15	10	10
load L/kg	20	30	20	30	25	25	40
Water	yes	no	yes	no			
Level					5	5	5
Drying							
temp./ C	60	40	60	40	80	60	60
moisture%					< 8	15	
time/min							2
Action	normal	gentle	normal	gentle	normal	gentle	very gentle